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**Reasons to bed-share: why parents sleep with their infants**

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## **Reasons to bed-share: why parents sleep with their infants**

### **Abstract**

The pros and cons of parent-infant bed-sharing have been hotly debated in both the academic and professional literature concerning infant health and early parenting. Much of the debate has focussed on data from the US, and little research has examined parents' motives for sleeping with their infants. This paper examines parental bed-sharing practices with young infants in North Tees, UK. We found that bed-sharing was a common night-time care-giving strategy, and the reasons articulated by parents for bed-sharing with their small infants were varied. There was a particularly strong association between bed-sharing and breastfeeding, however infant irritability or illness was also a frequently given reason for bed-sharing, and a number of other reasons emerged. We conclude it is important that circumstance and motivation are considered in assessments of bed-sharing safety, and parental reasons for bed-sharing are acknowledged in formulating advice for parents regarding bed-sharing.

## Introduction

Although much has been written in recent years regarding the pros and cons of parent infant bed-sharing, little research has examined parents' motives for sleeping with their infants, or explored the ramifications of the variety of reasons that might bring an infant to sleep in a parental bed. Controversy regarding parent-infant bed-sharing in westernised cultures has been fuelled by contradictory research findings regarding the calculated risks and perceived risks and benefits of bed-sharing (Scragg, Mitchell et al. 1993; Byard 1994; Farooqi, Lip et al. 1994; Klonoff-Cohen and Edelstein 1995; Scragg, Stewart et al. 1995; Mosko, Richard et al. 1996; McKenna, Mosko et al. 1997; Blair, Fleming et al. 1999; Drago and Dannenberg 1999; Kelley 2000; Kemp, Unger et al. 2000; McKenna 2000; Carroll-Pankhurst 2001). Some have gone so far as to recommend a 'ban' on parent-infant bed-sharing (U.S.C.P.S.C. 1999; Nakamura, Wind et al. 1999), while others advocate further research (Gilbert 1994; O'Hara, Harruff et al. 2000; McAfee 2000; Grossman 2000) and recommendations for parents regarding safe bed-sharing (Mermer 2000; Sugrue 1995). As yet, however, the discussion takes place with only a poor understanding of who bed-shares, how, and why, and with what outcome.

Ethnographic studies of non-westernised cultures reveal a wide array of practices that can be loosely defined as 'bed-sharing' (Caudill and Plath 1966; Barry and Paxson 1971; Lee 1992; Morelli, Rogoff et al. 1992; Nelson and Chan 1996; McKenna 2000). In most non-western cultures mother-infant contact sleeping is the norm (Barry and Paxson 1971), as it is in many minority ethnic subgroups in Euro-American countries e.g. (Lozoff, Wolf et al. 1984; Gantley,

Davies et al. 1993; Farooqi, Perry et al. 1993; Tuohy, Smale et al. 1998). For the majority populations in Euro-American countries estimates of bed-sharing prevalence have ranged upwards from 12% (Tuohy, Counsell et al. 1993) to 80% (Rigda, McMillen et al. 2000), depending on how the study sample was generated, how bed-sharing was defined, and how data were gathered.

The physiology of prolonged mother-infant contact provides support for the beneficial effects of bed-sharing – research data associates enhanced breast milk production, increased prevalence and duration of breastfeeding, improved cardio-respiratory stability and oxygenation, better thermoregulation, and fewer episodes of crying with regular mother-infant body contact (Trevathan and McKenna 1994). Within a western context epidemiological data have implicated bed-sharing as a risk factor for sudden infant death syndrome (e.g. Mitchell and Scragg 1993), and for accidental deaths of infants in adult beds (e.g. Nakamura, Wind et al. 1999). Observational studies of bed-sharing death-scenes have also attributed negative consequences to bed-sharing scenarios (Kemp, Unger et al. 2000). The most recent epidemiological evidence, however, found that bed-sharing was not a risk factor for sudden infant death syndrome for infants <14 weeks if the parents did not smoke (Blair, Fleming et al. 1999).

In order to further investigate some of these issues we conducted a qualitative and quantitative anthropological study of parent-infant bed-sharing among a sample of 253 families with new-born infants in the north-east of England. In this paper we focus on parents' reasons for sleeping with their infants.

## Methods

A sample of 253 families was recruited from N. Tees Hospital post-natal ward following approval from the local research ethics committee. Researchers visited the ward each week from July 1998 to Feb 2000, according to a randomly determined schedule, and attempted to recruit all mothers fitting our eligibility criteria (healthy infant and mother, delivered at 36+ weeks gestation). Mothers were approached individually on the post-natal ward by a female research assistant who verbally explained the study in general terms as an exploration of night-time care-giving practices. Mothers were briefly interviewed to ascertain their initial willingness to participate, and provided with an information sheet and consent form. Those who agreed to enter the study, and returned a signed consent form, were asked to provide basic demographic information, to complete a set of seven 'sleep diaries' (nightly logs), at home, over a period of seven consecutive days during their baby's first month and third month, and to participate in interviews at the end of the 1<sup>st</sup> and 3<sup>rd</sup> month.

### *Sleep logs*

Parents completed nightly logs each morning in regard to the previous night's sleep. Items included on the logs covered timing, whereabouts, and type of last infant feed, timing, location, and position in which infant fell asleep; enumeration of all the different places the infant slept in the course of the night; timing of retiring and sleeping for parents; duration and frequency of bouts of wakefulness on part of parent(s) or infant; frequency and duration of feeding

episodes; identity of care-giver(s) during the night; parental tiredness; clothing worn by infant and bed-covers used; evening and night-time consumption of cigarettes or alcohol by parent(s); descriptions of unusual events, weather, temperature of bedroom. An example of the sleep logs completed in the 1<sup>st</sup> month is shown in Figure 1. The 3-month sleep logs were almost identical.

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FIGURE 1 HERE

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Sleep logs were entered to Excel, averaged across each infant within each age category, and tabulated for statistical analyses. Sleep logs from 10% of participants were double entered (25/253). The exact percentage agreement for data entry was 0.984 and the kappa coefficient (correcting for chance agreement) was 0.968. This size of kappa indicates excellent reliability in data entry ( $z=4.84$ ,  $p<0.00001$ ).

### *Interviews*

Mothers were re-contacted when their infant reached the end of their 1<sup>st</sup> and 3<sup>rd</sup> months of age, and arrangements were made to interview her (or both parents) in their home shortly thereafter. At this interview the nightly logs were collected. Interviews were conducted by trained research staff who periodically observed each other's interviews to ensure internal consistency in gathering data. A semi-structured format was used to allow the interview to proceed in the manner of a guided conversation ensuring various topics and issues were covered, while allowing participants to express opinions and volunteer items of

information that they considered relevant to the discussion. Interviewers were instructed to remain neutral in all interview discussions and to draw out the participant's attitudes and practices. Interview data were entered into a database by the interviewer as soon as possible following the completion of the interview. The database was structured to reflect the semi-structured interview schedule used by the interviewer. Interviews from 10% of participants were double entered (25/253). The exact percentage agreement for data entry was 0.966, and the kappa coefficient (correcting for chance agreement) was 0.931. This size of kappa indicates excellent reliability in data entry ( $z=4.66$ ,  $p<0.00001$ ).

We used the interview database to sort and group the responses of participants into categories for analysis. The sorting and categorising were conducted via an iterative process that involved repeated passes through the interview database splitting and lumping categories in light of the entire range of parental responses to several questions – a common techniques for analysing semi-structured interview data (Smith 1995). For example, mothers were asked several questions about infant feeding – and an infant could be categorised as a ‘breastfed infant’ in several ways – were they *ever* breastfed, were they *currently* breastfed at the time of the interview, were they breastfed for a particular length of time (e.g. 4 weeks or more), were they breastfed exclusively, or breastfed in conjunction with artificial formula (mixed feeding). An infant could also be breast-milk fed (i.e. via expressed milk in a bottle, but not at the breast). As feeding type has a strong influence on infant sleep it was important for such categories to be rigorously defined and participants correctly assigned in each instance. For this reason two researchers, initially working blind to one another,



sorted and categorised the data. The two blind-categorised databases were then merged, and any disagreements in categorising were reconciled via mutual agreement following reference back to the original interview notes.

## Results

Four-hundred and ninety-seven mothers were approached on the maternity ward -- 85% (421) of which agreed to participate in the study. Bangladeshi and Pakistani women predominantly declined to take part, generally demurring on the basis of poor English language skills, or the necessity of obtaining their husband's permission, although these women did not comprise a large portion of the sample approached, or the population as a whole (~2%). We had not anticipated that we would obtain an ethnically diverse sample in this research and planned to examine night-time care-giving practices among the ethnic sub-populations of North Tees in a future project. Of the 421 women who completed the initial interview 40% (168) dropped out due to failure to complete the sleep logs, or to participate in one or both of the interviews. We continued recruiting until we had exceeded our target sample size of 250 participants with a complete set of data for each (final sample size = 253). Characteristics of the sample who completed the study are provided in Table 1. Those mothers who initially agreed to participate and then dropped out of the study differed from the final sample in terms of education and socio-economic group. There was a significant association between dropping out of the study and unemployment ( $\chi^2 = 21.4$ ,  $df=7$ ,  $p=0.003$ ), living in rented or temporary accommodation ( $\chi^2=42.76$ ,

df=4, p=0.000), and lack of post-16 education ( $\chi^2=21.11$ , df=4, p=0.000). The fact that many of these mothers had temporary accommodation arrangements directly accounted for their loss to the study, despite strenuous efforts to contact them by telephone, letter, and personal visit to their last known address.

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TABLE 1 HERE

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#### *Definition of bed-sharing*

Parents and infants were deemed to bed-share if the infant slept in the parental bed with one or both parents (*at the same time the parent(s) slept*), for any portion of a night or nights for which nightly logs were recorded. Sub-categories of bed-sharing were defined (following Ball, Hooker et al. 1999) as: habitual bed-sharing (infant sleeps in parental bed all night every night); combination bed-sharing (infant sleeps in more than one place, but sleeps in parents bed for at least part of night on at least 2 nights per week); occasional bed-sharing (infant sleeps in parents' bed once a week or less). Numbers of families in each sub-category are shown in Table 2. Non-bed-sharing families were those where the parents claimed their infant never slept with parent(s) in an adult bed.

#### *Prevalence of bed-sharing*

Table 2 shows that 47.4% of the babies in the sample bed-shared with their parents at least once, for all or part of the night, during their 1<sup>st</sup> month sleep-diary week. We consider this to be a conservative estimate of bed-sharing

prevalence in the neonatal period, as we are likely to have under-recorded cases where occasional bed-sharing occurred at a frequency of less than once per week. Not all bed-sharing babies began bed-sharing in the first few weeks of life (see below), but the majority did so. The mean infant age at the start of the 3-month sleep logs was 99.8 days, and 29.4% of babies bed-shared at least once, for all or part of the night, during their 3rd month sleep log week. Fifteen (20.5%) of the babies who bed-shared during the 3-month sleep logs had not bed-shared during the 1-month sleep logs. Fifty-four percent of babies bed-shared during at least one sleep-log night during the 1<sup>st</sup> month, 3<sup>rd</sup> month, or both. With the inclusion of parental reporting of 'ever bed-sharing' at interviews the proportion of the sample that had bed-shared by the time their baby was 4 months of age was 70% (176/253). Tables 2 and 3 provide a breakdown of the proportion of habitual, combination and occasional bed-sharing during the infants' first and third months of life.

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TABLE 2 HERE

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#### *Bed-sharing and breastfeeding*

The most common reason given by mothers in our sample for sleeping with their infants was the ease and convenience of night-time breastfeeding when bed-sharing. Although 49% (124/253) of mothers breastfed or mixed-fed their infants, 65% (80/124) of these infants who had 'ever breast-fed' slept in their

parents' bed, while 33.3% (43/129) of formula-fed infants did so. For infants who were breast-fed for a month or more, the association with bed-sharing was even greater: 72.3% (81/112) of these infants were bed-sharers compared to 38.3% (54/141) of formula-fed infants (see Table 4). The proportions of bed-sharing babies who were regular part-night (i.e. following early feed) bed-sharers were very similar -- 57/81 (70%) of breastfeeding bedsharers did so for part-nights --- while 39/54 (72%) of formula-fed bed-sharers followed the same pattern.

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TABLE 3 HERE

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Mothers in the sample who were unprepared for the greater frequency with which breastfed babies wake to feed during the night in comparison with formula-fed babies cited 'baby feeding too frequently at night' and 'mother needs more sleep' as reasons for giving-up breastfeeding in the early weeks. Those who were committed to breastfeeding, however, and those who had experience with previous children, used bed-sharing as a means to ameliorate frequent night-time feeds, often commenting that when bed-sharing they barely needed to wake up in order to latch the baby on the breast. In order to ascertain whether mothers terminated bed-sharing when they stopped breastfeeding we examined the bed-sharing practices of those mothers who were breastfeeding at the time of the 1st-month sleep logs, but did not continue breastfeeding past 8 weeks (i.e. stopped well before 3<sup>rd</sup>-month sleep logs). Thirty-six mothers fitted these

criteria, 15 of whom were bed-sharing regularly at the 1<sup>st</sup> month sleep logs. By the time of the 3<sup>rd</sup>-month logs when all were no longer breastfeeding, several (6) continued to bed-share regularly for part-nights, while an equal number no longer bed-shared at all. The remaining 3 mothers and infants still bed-shared, but now did so only occasionally.

*Bed-sharing to settle baby -- get some sleep*

For the 19% (47/253) of families where bed-sharing was unrelated to breast-feeding, settling a baby who was having trouble sleeping was a prevalent (55%: 26/47) reason for bed-sharing, as the following examples from sleep logs illustrate:

Family 467: "Baby appeared to have colic. As we were unsure we rang the doctor who confirmed that this is likely to be the case. Baby slept in parents bed so we could keep an eye on him."

Family 481 "He slept well but his cough kept waking him up a little bit so Granma brought him in her bed to keep an eye on him."

Family 407 "Continually twisted and turned in her sleep. Resolution: cuddled in bed with mum"

Family 243 "quite grizzly - ok when he came in bed with us - so we let him stay in bed with us"

Family 248 "He was coughing all night and very restless so he stayed in parents' bed"

Family 280 "Was cold during the night so put her in our bed and she went to sleep "

Family 361 "Baby was unsettled, brought into bed, cuddled"

In the majority (18/26) of these cases a baby who was unhappy at being put-down alone protested until the parents, desirous of sleep, allowed him into bed. In 8 cases, however, the cause of the infant's distress was illness, and two cases – although not readily apparent at the time -- were far from benign when viewed retrospectively. These two particular case studies are instructive. The following details are summarised from the nightly logs of two families, each presented as a seven-night sequence describing the infants' sleep.

FAMILY 123: 14 Jan 1999, Age 117 days

Put him down at 7:15 fell asleep woke up at 7:25, picked up fell asleep put down at 8:00, woke up at 8:10 fell asleep, put down again at 8:15, slept in own bed till 8:30. Finally fell asleep at 9:40 for the night in our bed

15 Jan, Age 118 days

He would fall asleep in my arms but as soon as I put him down he would wake up – brought into bed – woke up 7 times, cuddled to sleep

16 Jan, Age 119 days

Fell asleep in my arms, put into bed would not sleep so took him in my bed and he fell asleep and stayed in my bed for the night -- woke up 6 times

17 Jan, Age 120 days

He would not go down to sleep in his cot so he stayed in bed with me and went to sleep straight away. Have just found out he has German measles.

18 Jan, Age 121 days

He fell asleep in my arms then when I put him down he slept for 30 mins then woke up. He is still not 100% due to German measles

19 Jan, Age 122 days

He was very tired so I kissed, cuddled and talked to him and he fell asleep in my bed so I just left him there

FAMILY 417: 17<sup>th</sup> Jan 2000, 98 days

Baby slept well all night in cot in her own room

18<sup>th</sup> Jan, 99 days

Broken sleep, in bed with mum

19<sup>th</sup> Jan, 100 days

Woke early, generally irritable, rocked in bed with mum

20<sup>th</sup> Jan, 101 days

Woke at 23:30, then on and off for most of the night. In bed with mum

21<sup>st</sup> Jan, 102 days

Ear & chest infection & high temp, sleeps on and off, left downstairs & then taken to bed with mum

22<sup>nd</sup> Jan, 103 days

In bed with mum all night, slept well

23<sup>rd</sup> Jan, 104 days

In cot in own room, slept well all night

The first set of examples from our interview data illustrate that irregular bed-sharing occurred when parents took babies who were irritable and were having trouble sleeping into the parental bed. The two case studies show that, although uncommon, "twisty" (local slang) or irritable babies who are brought into bed may subsequently develop clinical manifestations of an infection. This suggests that *some* babies who are taken into their parents' bed when they are irritable or 'twisty' may therefore be in the prodromal phase of an illness (e.g. before the manifestation of clinical symptoms, but when the parents recognise that the baby is "not him/herself"). One potential explanation for some unexplained bed-sharing deaths, therefore, might be that a vulnerable baby facing a physiological challenge that has not yet manifested clinically, may be taken into the parents' bed due to behavioural irritability, where it may succumb to the physiological insult.



*To attend quickly to an ill baby*

Eleven families described having their baby sleep in their bed during periods of overt illness. For these families this was either a means to monitor the baby while s/he was in a vulnerable state, or because the illness was causing irritability or distress for the infant who was calmed by close contact with a parent. The situation of poorly infants sleeping in bed with their parents is somewhat different from the irritable but otherwise well-seeming infants being brought into bed under point 2. In this case the parents are aware of the infant's illness, vigilant for signs and symptoms, and active in taking precautions regarding overheating etc. In the following examples, for instance, illness is a precursor to the bed-sharing event -- whereas in the examples mentioned above, bed-sharing preceded overt signs of illness by several days:

Family 366 "Baby getting flu, woke every hour, in bed with mum"

Family 618 "Baby slept in parents' bed. Quite restless, had his immunisations and needed to be close to mum and dad"

Family 627 "Cold and snuffles, came into bed"

Parents subjectively felt that their baby was 'safer' in close contact with them during the night than isolated in a cot -- they were reassured by the ease with which they could hear or feel their infant breathing, monitor his/her

temperature, or simply confirm his/her presence, especially when the baby was ill.

### *Other bed-sharing motives*

Although breastfeeding, settling, and illness were the three primary motivations that caused parents to sleep with their infants in this study, parents mentioned several other reasons during interviews or on nightly logs.

*Fear of baby dying / dying alone.* Two of the mothers that we interviewed were extremely anxious about cot-death (SIDS), and slept with their baby in an effort to prevent him/her from dying -- rationalising that should their baby experience any distress they would awaken and be able to provide assistance. For another mother, however, it wasn't so much prevention of her baby's death that motivated her to bed-share, but its circumstances. She told of her premonition that her second son was going to die in infancy. She chose to sleep with him in her bed, she explained -- not because she thought she would be able to save him should he die -- but to reassure herself that when he died he would not be alone. Thankfully her premonition did not come true.

*For enjoyment / to increase time spent with baby.* Working parents who bed-shared articulated the pleasure of close contact at night with an infant they had to be separated from during the day, and the joy of waking to their infant's smile. Twenty-three percent (57/253) of mothers had returned to work by the time of

the 3-month interview, and 27 of these (47%) were bed-sharing – 10 of whom had not been bed-sharing when interviewed when their infant was 1 month old. Mothers who bed-shared and had returned to work were often those who had begun bed-sharing due to breastfeeding, and had continued bed-sharing following the termination of breastfeeding (12/27). Five further mothers continued to breastfeed at night while bed-sharing following their return to work during the day. One mother who had returned to work soon after her baby was born explained that bed-sharing gave her the contact with the baby that she missed through the day, "if I sleep with the baby, I can feel close, cuddled up, and it somehow helps me not to feel so guilty about leaving her through the day". Similar comments came from two bed-sharing fathers in the study but for them there was no involvement of guilt. They were happy being close to their infants during the night as they were away from them during the daytime.

*To ease maternal pain / discomfort following birth.* Several midwives were reported to have taught new mothers, especially mothers who had delivered via c-section, how to breastfeed their infants lying down – 31% (40/136) mothers who initiated breastfeeding reporting that they slept with their infants in their hospital bed. When the mothers found how easy and comfortable this feeding method was, 73% (29/40) of them adopted it for night-time feeding and combined it with regular bed-sharing.

*Nowhere else for the baby to sleep.* In one young family we interviewed bed-sharing was not so much a matter of choice, as of circumstance. The parents were a teenage couple (mother 17, father 19) awaiting housing provision from the local council. In the meantime they were living with relatives, where they were provided with a single bed. Following the birth of their baby all 3 members of the family slept together in the single bed -- baby in the crook of his mother's arm squeezed between both parents.

*Parenting ideology: family bed.* In contrast to the young couple described above, sleeping arrangements in 12 families reflected a conscious and pre-planned decision to bed-share, not just with an infant, but with children of all ages and, in some cases, family pets too (10% [12/119] of families with older children). Parents expressed their opinions that this 'family bed' ideology set the tone for a relaxed and intimate family relationship, and reflected a permissive parenting style that some educated and well-off parents in our sample wished to promote. Usually these families had begun sleeping with their first infant, and had progressed to larger and larger beds with the arrival of each subsequent child. It wasn't the case that all children in the family slept with their parents all night every night, but it was clear in such families that children were welcomed into their parents' bed at whatever time of the night they might choose to visit, and that they were always accommodated, no matter how many occupants the bed already contained.

## Discussion

Parents and infants in North Tees bed-share regularly, and for a variety of reasons including convenience, ideology, enjoyment, necessity and anxiety, however ease of breastfeeding is the most prominent reason given by parents for bed-sharing, and breastfeeding and bed-sharing are closely intertwined. That a strong and clear relationship exists between breastfeeding and bed-sharing is supported by numerous studies (Ford, Mitchell et al. 1994; Mitchell, Scragg et al. 1994; Clements, Mitchell et al. 1997; Ball, Hooker et al. 1999; Hooker, Ball et al. 2000; McCoy, Vezina et al. 2000). Among mothers belonging to the breastfeeding support network *La Leche League*, with infants aged 2 to 13 months, 60-90% were bed-sharers (Elias, Nicolson et al. 1986). A recent Australian study (Rigda, McMillen et al. 2000) of a small sample of socio-economically advantaged families with a high proportion (77%) of breast feeders found, using 24-hour sleep diaries once per week, that 80% of infants were reported to have ever bed-shared with one or both parents between birth and 24 weeks of age. Ford et al (1994) found an association between bed-sharing and longer duration of breastfeeding in a sample of 1529 New Zealand infants and concluded that further research was necessary to determine causality (Ford, Mitchell et al. 1994). McKenna, Mosko et al. (1997) and Ball (2000) have both argued that bed-sharing promotes breastfeeding. McKenna and colleagues demonstrated that mother-infant bed-sharing doubled the number of breastfeeding episodes, tripled the total nightly duration of breastfeeding, and significantly shortened inter-feed intervals compared with separate sleeping for the same mother-infant pair. Ball

has shown that, among mothers most likely to give-up breastfeeding, those who breastfeed and bed-share continue breastfeeding for significantly longer than those who breastfeed in the absence of bed-sharing (Ball 2000).

Although Byard (1998) cautions against the rare possibility of accidental asphyxia associated with breastfeeding related bed-sharing, breastfeeding mothers commonly bed-share as a means to ameliorate the sleep disruption of nocturnal breastfeeding (Ball, Hooker et al. 1999), thus we should expect that breastfeeding mothers and infants will predominate in any population of bed-sharers; a fact acknowledged by the American Academy of Pediatrics in their most recent position statement on bed-sharing (AAP 2000).

Because the profile of breastfeeding in many Western Industrialised countries involves a sharp decline in the proportion of infants breastfed between birth and 6 months (e.g. Foster, Lader et al. 1997; Arora 2000) we should likewise expect infants in the younger age brackets (those most likely to be breastfed) to be more likely to bed-share than infants in the older age brackets. The relationship between infant age and bed-sharing clearly demonstrated in the data from the current study is corroborated by Rigda et al (2000) who found a significantly greater proportion of younger infants (2-12 weeks) than older infants (13-24 weeks) bed-sharing in an Australian cohort (Rigda, McMillen et al. 2000).

Although breastfed babies are likely to predominate in any sample of bed-sharing families, a sizeable proportion of formula-feeders (53/113 in the present study) sleep with their infants for other reasons. Around half (27/53) of these families do so regularly (e.g. for ideological reasons, lack of space,

enjoyment etc), whereas the remainder of parents will bring their infants in to their bed only on rare and specific occasions (e.g. infant illness or irritability, or transient lack of space such as when travelling/visiting etc). The circumstances of irregular or occasional bed-sharing are such that safety considerations and potential risk factors might be quite different for these families than for those that practice regular breastfeeding related bed-sharing. In video-observational studies of mothers and infants sleeping together several researchers have begun to distinguish differences in the bed-sharing relationships of mothers and infants whose normative practice is to sleep together compared with those who normally sleep separately. Mosko et al (1997) reported that regularly bed-sharing mothers responded to their infants more rapidly on bed-sharing nights than did mothers who did not normally bed-share with their infants, while Young (1999) and Ball (2001) have found that irregularly bed-sharing mothers and non-breastfeeding mothers (respectively) turned their backs on their infants while bed-sharing, while regularly bed-sharing breastfeeding mothers did not. Young (1999) also found that mothers who were regular bed-sharers slept in closer proximity to their infants when sleeping together than did mothers who did not bed-share regularly.

It is clear then, that bed-sharing is not a “unitary” phenomenon. Breastfed infants are not the only babies that bed-share and both breastfeeders and non-breastfeeders bed-share in a variety of different ways, and for various reasons. Further research will be necessary to further elucidate the consequences (positive or negative) to infants of the various bed-sharing motivations reported

here. Such research would, however, be valuable in the provision of advice on bed-sharing risks and benefits that can be tailored to individual circumstances.

## **Conclusions**

Parents and infants in North Tees bed-share regularly, and for a variety of reasons including convenience, ideology, enjoyment, necessity and anxiety. The primary reason for bed-sharing is ease of night-time breastfeeding, but many families bed-share with their infants either regularly or occasionally for other reasons. It should not be assumed, even within an ethnically homogeneous population, that all parents who bed-share with their infants would do so in the same way, or for similar reasons. It is important, therefore, that circumstance and motivation are considered in assessments of bed-sharing safety, and parental reasons for bed-sharing are acknowledged in formulating advice for parents regarding bed-sharing.

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Figure 1: 1-month sleep log

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Table 1: Demographic and socio-economic characteristics of the sample

<i>Infants' characteristics</i>		
Sex of baby	122 girls, 131 boys	
Gestational age	Mean = 39.8 weeks (SD = 1.6)	
Birth weight	Mean = 7.7lbs (SD = 1.1)	
	1 month	3 months
Age at sleep logs	Mean = 2.4 weeks (SD = 1.7)	Mean = 14.3 weeks (SD = 2.1)
Age at interview	Mean = 5.2 weeks (SD = 1.9)	Mean = 16.4 weeks (SD = 2.6)
<i>Parents' characteristics:</i>		
	Mother	Father
Age	27.7 years (SD = 5.5)	30.3 years (SD = 6.2)
Education		
Age 16 or less	41.5%	44.9%
Post secondary / Vocational	38.4%	31.3%
Graduate and above	13.6%	12.8%
Not stated	3.5%	9.5%
Ongoing	3.5%	1.6%
Income	Median = £6000 (IQR = 0-12,000)	Median = £13000 (IQR = 8320-19760)
Household income	Median = £20930 (IQR = 10400-32500)	
Parity:	Mean = 1.6 (SD = 0.9)	
Marital status:	Married	60%
	Co-habiting	31%
	Single (with partner)	3%
	Single (no partner)	6%

Ethnicity	97.3%	both parents white UK
	1.2%	both parents Asian UK
	1.6%	'other'
Socioeconomic group of Head of Household	I	7.1%
	II	24.1%
	III	32.4%
	IV	16.6%
	V	5.1%
	Unemployed	9.5%
	Student	2.4%
	Not stated	2.8%

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Table 2: Bed-sharing in infant's 1<sup>st</sup> and 3<sup>rd</sup> month

Bed-sharing type	Definition	Proportion in 1 <sup>st</sup> month	Proportion in 3 <sup>rd</sup> month
Habitual	All night every night	3.2%	2.0%
Combination	Twice or more per week for all or part of night	32.4%	19.4%
Occasional	Once per week or less for all or part of night	11.9%	8.1%
TOTAL	All bed-sharers	47.4%	29.4%

Table 3: Association between breastfeeding and bed-sharing

	Bed-shared	Did not bed-share	Total
Ever breastfed	80 (65%)	44 (35%)	124
Never breastfed	43 (33%)	86 (67%)	129
$\chi^2=24.37$ , df=1, p<0.000001			
Breastfed (4 weeks +)	81 (72%)	31 (28%)	112
Formula-fed (4 weeks +)	54 (38%)	87 (62%)	141
$\chi^2=29.03$ , df=1, p<0.000001			

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